

Off-Road HawkLite™ KNUCKLE ROADWAY LED FIXTURE

PROJECT

TYPE

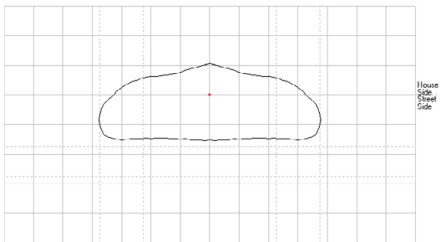
SPECIFICATION

- 120 - 277 V Standard; 347 - 480 V option available
- 10 year warranty
- Chip-scale package LEDs
- Corrosion resistant powder-coated finish to minimum 3.0 mil. thickness; Marine grade finish option available, consult factory
- Die cast aluminum housing designed for optimal thermal performance
- Universal control: 0 - 10 V and DALI dimming standard
- C136.41 compliant rotating photocell receptacle
- Superior optical distribution options
- Wildlife shield and leveling bubble standard
- Standard finish tested to 3,000 hours salt spray in accordance with ASTM B117
- House side shield option available
- DLC and DLC Premium listings
- IP66 rated optical chamber
- 3G Bridge Vibration Rated (ANSI C136.31-2010)
- Suitable for wet locations
- Rated for operation -40°C to 40°C; For 50°C, consult factory
- Surge Protection (ANSI C136.2-2015) 10kV 5kA Standard; 20kV 10kA optional*
- NEMA and distribution labeling come standard on all fixtures

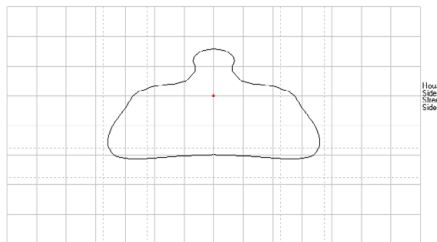


Distribution Types

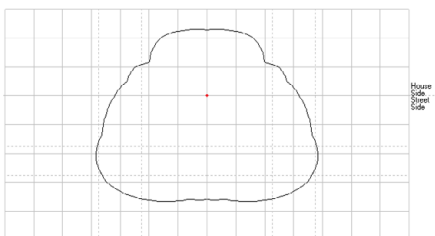
Type II Medium



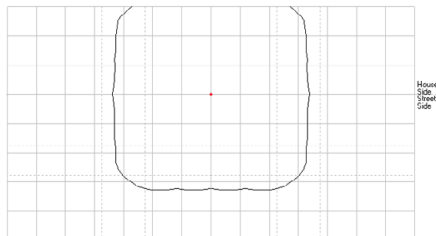
Type III Medium



Type IV Short



Type V Square



Projections

TM-21 Lumen Maintenance Projection

Calculated by utilizing the LED manufacturer's LM80 test data in conjunction with third party verified in-situ LED drive current and LED temperature data. All data is taken at a maximum drive current of 1050 mA and an ambient temperature of 25°C. Projected data is limited to 6 times the actual tested hours by the LED manufacturer.

	Calculated		Projected
L ₇₀	>150,000 hours	L ₇₀	>60,000 hours
L ₈₀	>100,000 hours	L ₈₀	>60,000 hours
L ₉₀	>40,000 hours	L ₉₀	>40,000 hours

Off-Road HawkLite™

KNUCKLE ROADWAY LED FIXTURE

ENERGYLITE

PROJECT

TYPE

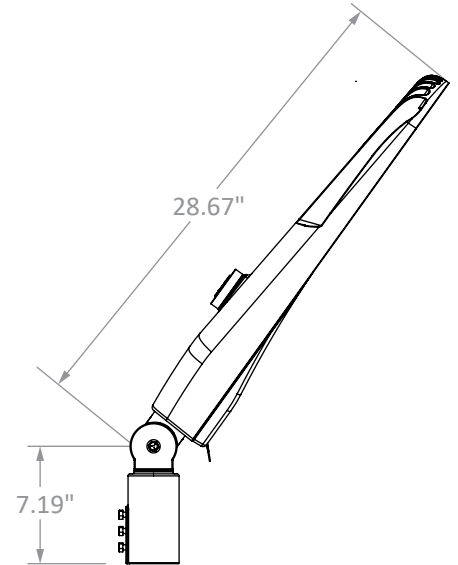
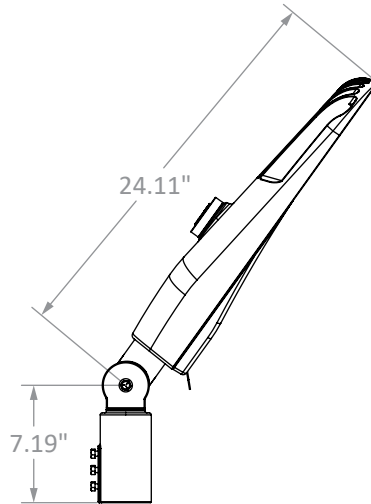
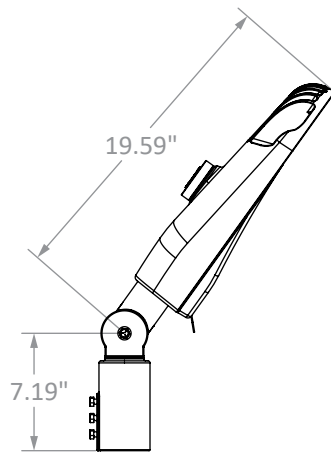
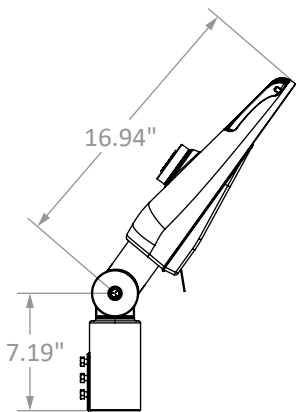
SPECIFICATION

HLm

HL1

HL2

HL3



Off-Road HLM

KNUCKLE ROADWAY LED FIXTURE

PROJECT

TYPE

SPECIFICATION

Weight	EPA
7 lbs.	0.26 sq. ft.

Fixture	Package	Drive Current	Color Temperature (CCT)	Input Power (Watts)	TYPE II MEDIUM AT 70 CRI			TYPE III MEDIUM AT 70 CRI			TYPE IV SHORT AT 70 CRI			TYPE V SQUARE AT 70 CRI																										
					Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating																								
HLM	2	350 mA	4000K / 5000K	22	2,710	122	B1-U0-G1	2,717	122	B1-U0-G1	2,545	114	B1-U0-G1	2,666	120	B2-U0-G1																								
			3000K		2,661	119		2,635	118		2,469	112		2,586	118																									
			2200K		1,996	89		1,976	89		1,852	84		1,940	89																									
	3	400 mA	4000K / 5000K	26	3,049	119		B1-U0-G1	3,057		119	B1-U0-G1		2,863	112		B1-U0-G1	3,000	117	B2-U0-G1																				
			3000K		3,000	117			2,965		115			2,777	110			2,910	116																					
			2200K		2,250	88			2,224		86			2,083	83			2,183	87																					
	4	570 mA	4000K / 5000K	36	4,132	116			B1-U0-G1		4,143			116	B1-U0-G1			3,881	109		B1-U0-G1	4,065	114	B2-U0-G2																
			3000K		4,060	114					4,019			112				3,765	107			3,943	113																	
			2200K		3,045	86					3,014			84				2,824	80			2,957	85																	
	5	750 mA	4000K / 5000K	47	5,177	111					B1-U0-G1			5,190				111	B1-U0-G1			4,861	104		B1-U0-G1	5,093	109	B2-U0-G2												
			3000K		5,060	108								5,034				107				4,715	101			4,940	107													
			2200K		3,795	81								3,776				80				3,536	76			3,705	80													
	6	950 mA	4000K / 5000K	58	6,214	107								B1-U0-G1				6,230				108	B1-U0-G1			5,836	101		B1-U0-G1	6,113	106	B2-U0-G2								
			3000K		5,960	103												6,043				101				5,661	96			5,930	102									
			2200K		4,470	77												4,532				76				4,246	72			4,448	77									
	6e	600 mA	4000K / 5000K	56	6,568	121												B1-U0-G2				6,600				119	B1-U0-G2			6,326	114		B1-U0-G2	6,657	120	B2-U0-G3				
			3000K		6,710	118																6,460				116				6,192	111			6,515	117					
			2200K		5,033	89																4,845				87				4,644	83			4,886	88					
	7e	710 mA	4000K / 5000K	66	7,559	117																B1-U0-G2				7,560				115	B1-U0-G2			7,246	111		B1-U0-G2	7,625	116	B2-U0-G3
			3000K		7,686	115																				7,435				113				7,126	108			7,499	114	
			2200K		5,765	86																				5,576				85				5,345	81			5,624	86	

Ordering Information

Example: HLM/3/2M/830/STD/10/10/3/GY/KM-HS-SS

Fixture HLM	Package	Distribution	CRI + CCT	Voltage	Controls	Surge	Photocell Receptacle	Finish	Options + Accessories
	2 ¹ - 2,000 3 ¹ - 3,000 4 ¹ - 4,000 5 ¹ - 5,000 6 ¹ - 6,000 6e ¹ - 6,500 7e ¹ - 7,500	2M ¹ - Type II Med 3M ¹ - Type III Med 4S ¹ - Type IV Short 5Q ¹ - Type V Square	722 - 70+ CRI, 2200K 727 - 70+ CRI, 2700K 730 ¹ - 70+ CRI, 3000K 740 ¹ - 70+ CRI, 4000K 750 - 70+ CRI, 5000K 822 - 80+ CRI, 2200K 830 - 80+ CRI, 3000K 840 - 80+ CRI, 4000K 850 - 80+ CRI, 5000K 930 - 90+ CRI, 3000K 940 - 90+ CRI, 4000K 950 - 90+ CRI, 5000K	STD ¹ - 120-277 V HV ² - 347-480 V	10 ¹ - 0-10 V D - DALI	0 - None 10 ¹ - 10kV 5kA 20 ² - 20kV 10kA	7 ¹ - 7 pin 0 - none	GY ¹ - Grey (RAL 7038) BZ - Bronze BK - Black GN - Green	HS ³ - House side Shield CS ³ - Cul-de-sac Shield FS ³ - Front side Shield SC - Shorting Cap 6P - 6 ft. pigtail NL - No Labeling KM - Knuckle Mount

* Other CRI + CCT combinations available

¹ Standard offering. Consult factory for lead time and availability on other options.

** 20kV 10kA surge protection is required for HV - 347-480 V

Off-Road HL1

KNUCKLE ROADWAY LED FIXTURE

PROJECT

TYPE

SPECIFICATION

Weight	EPA
10 lbs.	0.37 sq. ft.

Fixture	Package	Drive Current	Color Temperature (CCT)	Input Power (Watts)	TYPE II MEDIUM AT 70 CRI			TYPE III MEDIUM AT 70 CRI			TYPE IV SHORT AT 70 CRI			TYPE V SQUARE AT 70 CRI		
					Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating
HL1	4	380mA	4000K / 5000K	35	4,547	129	B1-U0-G1	4,472	127	B1-U0-G1	4,286	121	B1-U0-G1	4,510	128	B3-U0-G1
			3000K		4,502	128		4,428	126		4,244	120		4,466	127	
			2200K		3,377	96		3,321	95		3,183	90		3,350	95	
	5	480mA	4000K / 5000K	45	5,575	127	B1-U0-G1	5,483	123	B1-U0-G1	5,255	118	B1-U0-G1	5,530	124	B3-U0-G1
			3000K		5,523	124		5,432	123		5,206	118		5,479	124	
			2200K		4,142	93		4,074	92		3,905	89		4,109	93	
	6	600mA	4000K / 5000K	56	6,800	122	B1-U0-G1	6,688	119	B1-U0-G1	6,410	114	B1-U0-G2	6,745	120	B3-U0-G2
			3000K		6,706	119		6,596	118		6,322	113		6,653	119	
			2200K		5,030	89		4,947	89		4,742	85		4,990	89	
	7	710mA	4000K / 5000K	66	7,824	119	B1-U0-G2	7,695	116	B1-U0-G2	7,375	112	B1-U0-G2	7,761	117	B3-U0-G2
			3000K		7,709	117		7,582	115		7,267	111		7,647	116	
			2200K		5,782	88		5,687	86		5,450	83		5,735	87	
	8	830mA	4000K / 5000K	77	8,860	116	B2-U0-G2	8,714	113	B2-U0-G2	8,352	108	B2-U0-G2	8,789	114	B4-U0-G2
			3000K		8,711	113		8,568	112		8,212	107		8,642	113	
			2200K		6,533	85		6,426	84		6,159	80		6,482	85	
	9	980mA	4000K / 5000K	91	10,030	111	B2-U0-G2	9,863	109	B2-U0-G2	9,453	104	B2-U0-G2	9,948	110	B4-U0-G2
			3000K		9,881	109		9,719	108		9,315	103		9,802	109	
			2200K		7,411	82		7,289	81		6,986	77		7,352	82	
	10	1050mA	4000K / 5000K	97	10,570	110	B2-U0-G2	10,400	107	B2-U0-G2	9,968	102	B2-U0-G2	10,490	108	B4-U0-G2
			3000K		10,350	106		10,180	106		9,757	101		10,270	107	
			2200K		7,763	80		7,635	80		7,318	76		7,703	80	

Ordering Information

Example: HL1/6/2M/830/STD/10/10/3/GY/KM-HS-S5

Fixture HL1	Package 4 ¹ - 4,000 5 ¹ - 5,000 6 ¹ - 6,000 7 ¹ - 7,000 8 ¹ - 8,000 9 ¹ - 9,000 10 ¹ - 10,000	Distribution 2M ¹ - Type II Med 3M ¹ - Type III Med 4S ¹ - Type IV Short 5Q ¹ - Type V Square	CRI + CCT 722 - 70+ CRI, 2200K 727 - 70+ CRI, 2700K 730 ¹ - 70+ CRI, 3000K 740 ¹ - 70+ CRI, 4000K 750 - 70+ CRI, 5000K 822 - 80+ CRI, 2200K 830 - 80+ CRI, 3000K 840 - 80+ CRI, 4000K 850 - 80+ CRI, 5000K 930 - 90+ CRI, 3000K 940 - 90+ CRI, 4000K 950 - 90+ CRI, 5000K	Voltage STD ¹ - 120-277 V HV ² - 347-480 V	Controls 10 ¹ - 0-10 V D - DALI	Surge 0 - None 10 ¹ - 10kV 5kA 20 ² - 20kV 10kA	Photocell Receptacle 7 ¹ - 7 pin 0 - none	Finish GY ¹ - Grey (RAL 7038) BZ - Bronze BK - Black GN - Green	Options + Accessories HS ³ - House side Shield CS ³ - Cul-de-sac Shield FS ³ - Front side Shield SC - Shorting Cap 6P - 6 ft. pigtail NL - No Labeling KM - Knuckle Mount
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* Other CRI + CCT combinations available

* Consult factory for lead time and availability.

¹ Standard offering. CF for lead and availability for other options.

² 20kV 10kA surge protection is required for HV - 347-480 V.

³ Flat-black, injection molded plastic resin, tool-less, clip-on discrete shield.

Off-Road HL2

KNUCKLE ROADWAY LED FIXTURE

PROJECT

TYPE

SPECIFICATION

Weight	EPA
16 lbs.	0.63 sq. ft.

Fixture Package	Drive Current	Color Temperature (CCT)	Input Power (Watts)	TYPE II MEDIUM AT 70 CRI			TYPE III MEDIUM AT 70 CRI			TYPE IV SHORT AT 70 CRI			TYPE V SQUARE AT 70 CRI		
				Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating
HL2	10	4000K / 5000K	84	10,860	130	B1-U0-G2	10,850	130	10,340	124	B2-U0-G2	10,890	130	B4-U0-G2	
		3000K		10,550	126		10,550	126	10,050	120		10,590	127		
		2200K		7,913	95		7,913	95	7,538	90		7,943	95		
	11	4000K / 5000K	94	12,070	128	B2-U0-G2	12,060	128	11,490	122	B2-U0-G2	12,110	129	B4-U0-G2	
		3000K		11,670	124		11,660	123	11,110	118		11,700	124		
		2200K		8,753	93		8,745	92	8,333	89		8,775	93		
	12	4000K / 5000K	108	13,240	124	B2-U0-G2	13,230	124	12,600	118	B2-U0-G2	13,280	124	B4-U0-G2	
		3000K		12,900	120		12,890	120	12,280	114		12,940	120		
		2200K		9,675	90		9,668	90	9,210	86		9,705	90		
	13	4000K / 5000K	117	14,100	122	B2-U0-G2	14,090	122	13,420	116	B2-U0-G2	14,140	123	B4-U0-G2	
		3000K		13,800	118		13,790	118	13,140	113		13,840	119		
		2200K		10,350	89		10,343	89	9,855	85		10,380	89		
	14	4000K / 5000K	126	14,990	121	B2-U0-G2	14,970	121	14,260	115	B2-U0-G2	15,030	121	B4-U0-G2	
		3000K		14,600	116		14,580	116	13,890	111		14,640	117		
		2200K		10,950	87		10,935	87	10,418	83		10,980	88		
	15	4000K / 5000K	139	16,190	118	B2-U0-G2	16,180	118	15,410	112	B2-U0-G2	16,240	118	B4-U0-G2	
		3000K		15,740	113		15,730	113	14,990	108		15,790	114		
		2200K		11,805	85		11,798	85	11,243	81		11,843	86		
16	4000K / 5000K	152	17,310	115	B2-U0-G2	17,300	115	16,480	109	B2-U0-G2	17,370	115	B4-U0-G2		
	3000K		16,870	111		16,860	111	16,060	105		16,920	111			
	2200K		12,653	83		12,645	83	12,045	79		12,690	83			
17	4000K / 5000K	164	18,180	113	B2-U0-G2	18,160	113	17,300	107	B2-U0-G2	18,230	113	B4-U0-G2		
	3000K		17,760	109		17,740	108	16,900	103		17,810	109			
	2200K		13,320	82		13,305	81	12,675	77		13,358	82			
18	4000K / 5000K	176	19,070	110	B2-U0-G2	19,050	110	18,150	104	B2-U0-G2	19,120	110	B4-U0-G2		
	3000K		18,670	106		18,650	106	17,750	101		18,720	106			
	2200K		14,003	80		13,988	80	13,313	76		14,040	80			
19	4000K / 5000K	189	19,910	107	B2-U0-G2	19,890	107	18,950	102	B3-U0-G3	19,970	107	B5-U0-G3		
	3000K		19,450	103		19,430	103	18,510	98		19,500	103			
	2200K		14,588	77		14,573	77	13,883	74		14,625	77			

Ordering Information

Example: HL2/13/2M/830/STD/10/10/3/GY/KM-HS-SS

Fixture	Package	Distribution	CRI + CCT	Voltage	Controls	Surge	Photocell Receptacle	Finish	Options + Accessories
HL2	10 ¹ - 10,000 11 ¹ - 11,000 12 ¹ - 12,000 13 ¹ - 13,000 14 ¹ - 14,000 15 ¹ - 15,000 16 ¹ - 16,000 17 ¹ - 17,000 18 ¹ - 18,000 19 ¹ - 19,000	2M ¹ - Type II Med 3M ¹ - Type III Med 4S ¹ - Type IV Short 5Q ¹ - Type V Square	722 - 70+ CRI, 2200K 727 - 70+ CRI, 2700K 730 ¹ - 70+ CRI, 3000K 740 ¹ - 70+ CRI, 4000K 750 - 70+ CRI, 5000K 822 - 80+ CRI, 2200K 830 - 80+ CRI, 3000K 840 - 80+ CRI, 4000K 850 - 80+ CRI, 5000K 930 - 90+ CRI, 3000K 940 - 90+ CRI, 4000K 950 - 90+ CRI, 5000K	STD ¹ - 120-277 V HV ² - 347-480 V	10 ¹ - 0-10 V D - DALI	0 ¹ - None 10 - 10kV 5kA 20 ² - 20kV 10kA	7 ¹ - 7 pin 0 - none	GY ¹ - Grey (RAL 7038) BZ - Bronze BK - Black GN - Green	HS ³ - House side Shield CS ³ - Cul-de-sac Shield FS ³ - Front side Shield SC - Shorting Cap 6P - 6 ft. pigtail NL - No Labeling KM - Knuckle Mount

* Other CRI + CCT combinations available

* Consult factory for lead time and availability.

¹ Standard offering. CF for lead and availability for other options.

² 20kV 10kA surge protection is required for HV - 347-480 V.

³ Flat-black, injection molded plastic resin, tool-less, clip-on discrete shield.

Off-Road HL3

KNUCKLE ROADWAY LED FIXTURE

PROJECT

TYPE

SPECIFICATION

Weight	EPA
18.3 lbs.	0.52 sq. ft.

Fixture	Package	Drive Current	Color Temperature (CCT)	Input Power (Watts)	TYPE II MEDIUM AT 70 CRI			TYPE III MEDIUM AT 70 CRI			TYPE IV SHORT AT 70 CRI			TYPE V SQUARE AT 70 CRI		
					Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating	Luminous Flux Output (Nominal Lumens)	Efficacy (Lumens per Watt)	BUG Rating
HL3	21	700mA	4000K / 5000K	179	21,670	122	B2-U0-G3	21,580	122	B3-U0-G3	20,540	116	B3-U0-G3	21,820	123	B5-U0-G3
			3000K		21,480	120		21,390	120		20,360	114		21,630	121	
			2200K		16,110	90		16,043	90		15,270	86		16,223	91	
	22	740mA	4000K / 5000K	189	22,540	121	B3-U0-G3	22,450	121	B3-U0-G3	21,370	115	B3-U0-G3	22,700	122	B5-U0-G3
			3000K		22,330	118		22,240	118		21,170	112		22,400	119	
			2200K		16,748	89		16,680	89		15,878	84		16,800	89	
	23	790mA	4000K / 5000K	202	23,770	119	B3-U0-G3	23,670	119	B3-U0-G3	22,530	113	B3-U0-G3	23,940	120	B5-U0-G3
			3000K		23,410	116		23,310	116		22,190	110		23,570	117	
			2200K		17,558	87		17,483	87		16,643	83		17,678	88	
	24	850mA	4000K / 5000K	217	25,040	117	B3-U0-G3	24,940	116	B3-U0-G3	23,740	111	B3-U0-G3	25,220	118	B5-U0-G3
			3000K		24,670	114		24,570	113		23,390	108		24,850	115	
			2200K		18,503	86		18,428	85		17,543	81		18,638	86	
	25	900mA	4000K / 5000K	230	26,020	115	B3-U0-G3	26,910	119	B3-U0-G3	24,660	109	B3-U0-G3	26,200	116	B5-U0-G3
			3000K		25,800	112		25,690	112		24,450	106		25,980	113	
			2200K		19,350	84		19,268	84		18,338	80		19,485	85	
	26	940mA	4000K / 5000K	240	26,830	113	B3-U0-G3	26,720	113	B3-U0-G3	25,430	108	B3-U0-G3	27,020	114	B5-U0-G3
			3000K		26,000	108		26,490	110		25,210	105		26,790	112	
			2200K		19,500	81		19,868	83		18,908	79		20,093	84	
	27	980mA	4000K / 5000K	250	27,440	111	B3-U0-G3	27,330	111	B3-U0-G3	26,010	106	B3-U0-G3	27,640	112	B5-U0-G3
			3000K		27,280	109		27,170	109		25,860	103		27,470	110	
			2200K		20,460	82		20,378	82		19,395	77		20,603	83	
	28	1030mA	4000K / 5000K	263	28,310	109	B3-U0-G3	28,190	109	B3-U0-G3	26,830	104	B3-U0-G3	28,510	110	B5-U0-G3
			3000K		27,190	103		28,010	107		26,660	101		28,320	108	
			2200K		20,393	77		21,008	80		19,995	76		21,240	81	

Ordering Information

Example: HL3/24/2M/830/STD/10/10/3/GY/KM-HS-SS

Fixture	Package	Distribution	CRI + CCT	Voltage	Controls	Surge	Photocell Receptacle	Finish	Options + Accessories
HL3	21 ¹ - 21,000 22 ¹ - 22,000 23 ¹ - 23,000 24 ¹ - 24,000 25 ¹ - 25,000 26 ¹ - 26,000 27 ¹ - 27,000 28 ¹ - 28,000	2M ¹ - Type II Med 3M ¹ - Type III Med 4S ¹ - Type IV Short 5Q ¹ - Type V Square	722 - 70+ CRI, 2200K 727 - 70+ CRI, 2700K 730 ² - 70+ CRI, 3000K 740 ¹ - 70+ CRI, 4000K 750 - 70+ CRI, 5000K 822 - 80+ CRI, 2200K 830 - 80+ CRI, 3000K 840 - 80+ CRI, 4000K 850 - 80+ CRI, 5000K 930 - 90+ CRI, 3000K 940 - 90+ CRI, 4000K 950 - 90+ CRI, 5000K	STD ¹ - 120-277 V HV ² - 347-480 V	10 ¹ - 0-10 V D - DALI	0 - None 10 ² - 10kV 5kA 20 ² - 20kV 10kA	7 ¹ - 7 pin 0 - none	GY ¹ - Grey (RAL 7038) BZ - Bronze BK - Black GN - Green	HS ³ - House side Shield CS ³ - Cul-de-sac Shield FS ³ - Front side Shield SC - Shorting Cap 6P - 6 ft. pigtail NL - No Labeling KM - Knuckle Mount

* Other CRI + CCT combinations available

* Consult factory for lead time and availability.

¹ Standard offering. CF for lead and availability for other options.

² 20kV 10kA surge protection is required for HV - 347-480 V.

³ Flat-black, injection molded plastic resin, tool-less, clip-on discrete shield.